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## IDEALISM VS PRAGMATISM: INTEGRATING DESIGN AND ECONOMICS IN ARCHITECTURE

### *Abstract*

This article/ essay looks at the reasons for the conflict between the architect and real estate developers, the former representing ‘design’ and the latter representing ‘economics’. It looks at an architect’s need for understanding market forces not just for a successful practice, but also establishes the need for integrating profit maximization as a pre-requisite in his/her design approach. It looks at how integrating design and economics is necessary to address global challenges such as sustainability, affordable housing and urban land use policies.

### *Keywords*

Design, economics, commodity, finance, profitability, sustainability

### **1. Introduction**

The term ‘Real estate’ has a negative connotation in most architect’s cognizance. While an architect is trained to be idealistic and is entrusted with upholding the moral and ethical standards of building design (Van der Kuil, Wellner 2017), the real estate sector (including developers and investors) is the one that converts these designs into real property, albeit with a profit motive. However, in a globalized world driven by the pursuit of financial interests, architects are faced with the dilemma of choosing between design and economics very early on in their careers. This essay is an attempt to establish the inter-dependence of design and economics and to emphasise the need for their co-existence to develop a sustainable built environment.

A key reason for the conflict between architects and real estate developers is their perception of a building – while architects are trained to treat it as ‘shelter’, a place which houses a certain function, the real estate industry perceives it as a ‘commodity’ that is influenced by market forces and due to the concept of ownership and the huge capital investments made in constructing these buildings,



they are considered as an ‘investment vehicle’. As a result, the architect’s focus is more on the aesthetic, functional, structural and symbolic dimensions of the building, whereas the real estate industry focuses on the financial returns of an investment or profits made by selling a product.

While architectural education focuses more on theory and design, in practice, an architect has to play a larger role in the entire development process. Development process of a building involves, aside from design, various activities such as acquisition of land, financing, development, management and adaptive reuse (more relevant in the post-covid era) involving multiple stakeholders. The role of an architect is to balance the conflicting needs of various stakeholders to ensure that the design addresses the client’s requirements in terms of use, budget, time and economic returns. Also, the building industry today faces a number of challenges such as high cost of land, labour shortages, volatile material market, rising construction cost, all of which are driven by market forces. An understanding of the market forces is therefore of paramount importance to establish a successful practice for an architect.

Creative differences, cost overruns, delays and a complete absence of the understanding of the consumer’s need are some of key reasons of conflict between architects and the real estate industry. In most cases developers are blamed for not giving any importance to the value add that is brought about by design; on the contrary, they consider architect’s contribution as expensive, unnecessary and time-consuming (Budds, 2018). Architects on the other hand blame real estate developers for commoditization of the built environment. According to them free

flow of capital in the globalised world has resulted in homogeneity, repetition and lack of context (ibid) in the built environment. Buildings all over the world today look identical with no connection whatsoever to its natural, historical and socio-cultural settings.

## 2. Integrating Design and Economics

The Vitruvian triad defines good architecture as commodity, firmness and delight. The term ‘commodity’ refers to the ‘function’ of the building and there are several layers to the term function. Function may refer to user function, technical function, environmental function, economic function and symbolic function (Omrania, referred 2020). It is therefore the architect’s responsibility to fulfil the economic function of a building by integrating design and economics.

Built-environment requires substantial financial resources. Both individual households and businesses spend considerable amounts of their income/revenue in creating these assets, which in turn account for significant portions of their wealth. Hence, owners wish not only to lower costs but also to increase profits. The owner/investor employs various ways to increase profits such as

- select locations that enhance revenue opportunity
- maximise usable floor space
- ensuring the development is demand driven
- ensuring the land is put to its highest and best use

The role of architect is to treat this requirement of profit maximization as a ‘must-have’ or indispensable in their design approach rather than it being an after-thought. Take for instance, maximising floor space – achieving the full Floor Area Ratio (FAR) permissible for a given site is a pre-requisite



especially for high-value land in city centres; failing which, market forces will ensure its redevelopment for the highest and best use in the long run. The next section elaborates on how some of the major challenges faced by the built environment can be addressed by integrating design and economics.

## 2.1 Sustainability

Buildings are enormous consumers of energy and resources; it accounts for 36% of the global energy use and is responsible for 39% of the global carbon di-oxide emissions (International Energy Agency, 2017). The building industry is heading towards more performance-based and outcome-based compliance in order to achieve its sustainability goals. The most economic building is one that provides the highest value at the lowest cost by economising the use of scarce resources throughout the life cycle of a building (Mulligan, 1993). ‘Cost’ here not just refers to the initial cost of construction, but also operations, maintenance and repair costs. While developers are motivated by the cost savings, architects have a significant role to play in ensuring that energy and resource performance of the project is integrated into the overall design.

## 2.2 Housing affordability

The second aspect that is addressed by a combination of design and economics is that of ‘affordability’ particularly in the case of low-income housing. Affordable housing is defined as housing that is affordable to that section of the society whose income is less than the median income of that region. According to a study by Indian Institute for Human Settlements (IIHS), 95% of the urban households in India cannot afford a house that costs more than Inr10 lakhs (IIHS, 2014).

This shows the massive housing shortage and also the need to bring down the cost of construction. Adopting modular construction that includes design optimization, adequately supported by the economic principles of scale and the integration of automation technology can help bring down the initial cost of construction. Modularisation has the capability to disrupt construction and real estate ecosystems; some of the recent projects using modular technology have proven that project timelines can be accelerated by 20%-50% and costs reduced by 20% (Mckinsey, 2019).

Some economists argue that international finance in housing markets respond to the preferences of global investors forcing markets to build not for end-users but for investors who are fixated upon the product’s future/ resale value rather than the need of communities (Farahani, Clark, 2016). Reports suggest that this has resulted in spatial segregation and inequality in cities. However, countries such as Singapore have tailored government policies by leveraging market forces to achieve their social goals (Centre for Livable Cities, 2017). This has also given birth to the concept of ‘demand driven design’ where a thorough market due diligence and consumer preference surveys are conducted to provide a clear design direction to the architects. Some architects are using this method of demand driven design to inverse the relationship between demand and supply in real estate from supply driven to demand driven (Delaux, 2018).

## 2.3 Urban policies

According to urban researchers, great cities are a result of the alignment of their spatial and economic growth (Patel, 2015). Urban planning has undergone a paradigm shift from the design driven approach during the



industrial era to a market driven approach today. Planners argue that design driven planning is static and urban planning based on land-use regulations has negative impacts on housing affordability, business locations and labour markets. They observe that urban policies driven by markets are dynamic and are more responsive to the exogenous factors in a globalised world. Alain Bertaud in his book “Order without Design” highlights the relationship between market forces and urban spatial structure. According to him market forces help in increasing urban land supply, transforming land use, setting the quantity of land and floor space used as well as heights of buildings (Bertaud, 2014). At the same time Bertaud emphasises the need for design intervention where markets have failed, especially in providing public goods such as parks, open spaces, streets and road networks.

### 3. Conclusion

Ensuring that a building satisfies its economic function is more relevant in today’s world than ever before. Increasing population and urbanization are two reasons causing immense pressure on land resources. More than 60% of the urban population is expected to live in cities by the year 2030 with more than 43 megacities (cities with more than 10 million inhabitants) (UNDESA, 2018). Majority of these megacities and fastest growing urban centres are expected to be concentrated in the emerging economies of Asia and Africa. Catering to the growing demand of this urban population in terms of affordable housing, transportation, energy efficiency and infrastructure are major challenges that will require the participation of building professionals and the real estate sector to ensure the best use of the limited resources.

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